General Relativity and Quantum Cosmology

# Thermal fluctuations in viscous cosmology

Wei-Jia Li, Yi Ling, Jian-Pin Wu, Xiao-Mei Kuang

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In this paper we investigate the power spectrum of thermal fluctuations in very early stage of viscous cosmology. When the state parameter as well as the viscous coefficient of a barotropic fluid is properly chosen, a scale invariant spectrum with large non-Gaussianity can be obtained. In contrast to the results previously obtained in string gas cosmology and holographic cosmology, we find the non-Gaussianity in this context can be k-independent such that it is not suppressed at large scale, which is expected to be testified in future observation.

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